AMENDMENTS TO THE CLAIMS

Please amend the claims of the present application as set forth below. In accordance with the PTO's revised amendment format, a detailed listing of all claims has been provided. A status identifier is provided for each claim in a parenthetical expression following each claim number. Changes to the claims are shown by strikethrough (for deleted matter) or underlining (for added matter).

Claim History Summary:

Claims 1-56 were originally filed.

An election was made as to species of Figure 9B in Paper No. 7.

As a result of the election, claims 3-6, 9, 10, 12-31, 33-36, 39-48, 50, 51, 54 and 55 were withdrawn from consideration.

Claims 1, 2, 7, 8, 11, 32, 37, 38, 49, 52, 53 and 56 were deemed pending.

Claims 1, 2, 7, 8, 11, 32, 37, 49 and 52 were rejected in an Office Action of November 21, 2003.

Claims 38, 53 and 56 were objected to in the Office Action of November 21, 2003.

Claims 1, 7, 8 and 11 were amended in a Response of March 10, 2004.

Claims 57, 58 and 59 were added in the Response of March 10, 2004.

Claim 42 was requested to be reinstated as part of the elected species in the Response of March 10, 2004.

Claims 1, 2, 7, 8, 11, 32, 37, 38, 49, 52, 53, 57 and 59 were rejected in an Office Action of May 24, 2004.

Claims 56 and 58 were objected to in the Office Action of May 24, 2004.

Claim 42 was reinstated in the Office Action of May 24, 2004.

In the Response of August 24, 2004, claims 1, 11, 57 and 59 were currently amended and claim 58 was cancelled;

Pending Office Action:

The Office rejected claims 1, 2, 7, 8, 11, 32, 37, 42, 49, 52, 53 and 59; allowed claim 57 and objected to claims 38 and 56.

Summary of Present Response:

Claims 1, 2, 7, 8, 11, 32, 37, 42, 49, 52, 53 and 59 are cancelled; claim 38 is currently amended; and claims 3-6, 9, 10, 12-31, 33-36, 39-41, 43-48, 50, 51, 54 and 55 stand withdrawn.

Claims 38, 56 and 57 are pending.

Detailed Listing of All Claims 1-59:

Claim 1 (Cancelled). A heat exchanger comprising:

a. a core having a variable size and comprising a stack of plates to facilitate heat exchange; and

b. a support structure connected to the core, the support structure having a fluid-biased, deformable member for accommodating variations in the size of the core.

Claim 2 (Cancelled). The heat exchanger of Claim 1, wherein the support structure further comprises a biasing member for applying a biasing force to the core.

Claim 3 (Withdrawn). The heat exchanger of Claim 2, wherein the deformable member comprises a tension spring.

Claim 4 (Withdrawn). The heat exchanger of Claim 3, wherein the biasing member comprises the tension spring.

Claim 5 (Withdrawn). The heat exchanger of Claim 2, wherein the deformable member comprises a compression spring.

Claim 6 (Withdrawn). The heat exchanger of Claim 5, wherein the biasing member comprises the compression spring.

Claim 7 (Cancelled). The heat exchanger of Claim 1, wherein the deformable member comprises a bellows.

Claim 8 (Cancelled). The heat exchanger of Claim 2, wherein the biasing member comprises the bellows.

Claim 9 (Withdrawn). The heat exchanger of Claim 2, wherein the deformable member comprises a piston assembly.

Claim 10 (Withdrawn). The heat exchanger of Claim 9, wherein the biasing member comprises the piston assembly.

Claim 11 (Cancelled). A heat exchanger comprising:

a. a core having a variable length and comprising a stack of plates to facilitate heat exchange; and

b. a support structure, wherein the core is received by the support structure, wherein the support structure comprises a fixed member and an attached fluid-biased, deformable member for accommodating variations in the length of the core while applying a biasing force to the core.

Claim 12 (Withdrawn). The heat exchanger of Claim 11, wherein the biased deformable member comprises a tension spring.

Claim 13 (Withdrawn). The heat exchanger of Claim 11, wherein the fixed member comprises a first portion and a second portion, wherein the first portion and the second portion are positioned about the core, wherein the first portion and the second portion are in contact with the core, wherein the biased deformable member is mounted between the first portion and the second portion.

Claim 14 (Withdrawn). The heat exchanger of Claim 13, wherein the biased deformable member comprises a tie rod, wherein the tie rod comprises a coiled spring section, so that the tie rod is deformable to accommodate variations in the length of the core while applying a biasing force to the first portion and second portion of the fixed member.

Claim 15 (Withdrawn). The heat exchanger of Claim 14, wherein the tie rod is shaped into the coiled spring section.

Claim 16 (Withdrawn). The heat exchanger of Claim 15, wherein the tie rod is substantially aligned with the variable length of the core.

Claim 17 (Withdrawn). The heat exchanger of Claim 13, wherein the biased deformable member is a tie rod, wherein the tie rod comprises a spiral spring section, so that the tie rod is deformable to accommodate variations in the length of the core while applying a biasing force to the first portion and second portion of the fixed member.

Claim 18 (Withdrawn). The heat exchanger of Claim 17, wherein the tie rod is shaped into the spiral spring section.

Claim 19 (Withdrawn). The heat exchanger of Claim 13, wherein the biased deformable member is a tie rod, wherein the tie rod comprises a shaped spring section, so that the tie rod is deformable to accommodate variations in the length of the core while applying a biasing force to the first portion and second portion of the fixed member.

Claim 20 (Withdrawn). The heat exchanger of Claim 19, wherein the shaped spring section of the tie rod has a non-linear shaped section.

Claim 21 (Withdrawn). The heat exchanger of Claim 19, wherein the shaped spring section of the tie rod is a s-shaped section.

Claim 22 (Withdrawn). The heat exchanger of Claim 21, wherein the tie rod is shaped into the s-shaped section.

Claim 23 (Withdrawn). The heat exchanger of Claim 22, wherein the tie rod is substantially aligned with the variable length of the core.

Claim 24 (Withdrawn). The heat exchanger of Claim 19, wherein the shaped spring section of the tie rod is a wave shaped section.

Claim 25 (Withdrawn). The heat exchanger of Claim 11, wherein the biased deformable member comprises a compression spring.

Claim 26 (Withdrawn). The heat exchanger of Claim 13, wherein the biased deformable member comprises a tie rod and a compression spring, so that the compression spring is deformable to accommodate variations in the length of the core while applying a biasing force to the first portion and second portion of the fixed member.

Claim 27 (Withdrawn). The heat exchanger of Claim 26, wherein the tie rod has a first end, wherein the compression spring is positioned between the end of the tie rod and the first portion of the fixed member, so that a biasing force is exerted by the deformable member on to the first portion and second portion with the tie rod in tension and the compression spring in compression.

Claim 28 (Withdrawn). The heat exchanger of Claim 27, wherein the compression spring comprises a coil spring.

Claim 29 (Withdrawn). The heat exchanger of Claim 28, wherein the tie rod is substantially aligned with the variable length of the core.

Claim 30 (Withdrawn). The heat exchanger of Claim 27, wherein the compression spring comprises a Belleville washer.

Claim 31 (Withdrawn). The heat exchanger of Claim 13, wherein the biased deformable member comprises a tie rod, a first compression spring and a second compression spring, wherein the tie rod has a first end and a second end, wherein the first compression spring is positioned between the first end of the tie rod and the first portion of the fixed member, wherein the second compression spring is positioned between the second end of the tie rod and the second portion of the fixed member, so that the first compression spring and the second compression spring are deformable to accommodate variations in the length of the core while applying a biasing force to the first portion and second portion of the fixed member.

Claim 32 (Cancelled). The heat exchanger of Claim 11, wherein the fixed member comprises a first end and a second end, wherein the first end and the second end are positioned about the core, wherein the first end is in contact with the core, wherein the biased deformable member is mounted between the core and the second end of the fixed member, so that the biased deformable member is deformed as the length of the core varies.

Claim 33 (Withdrawn). The heat exchanger of Claim 32, wherein the biased deformable member is a compression spring.

Claim 34 (Withdrawn). The heat exchanger of Claim 33, wherein the biased deformable member is a coil spring.

Claim 35 (Withdrawn). The heat exchanger of Claim 33, wherein the biased deformable member is a corrugated spring.

Claim 36 (Withdrawn). The heat exchanger of Claim 33, wherein the biased deformable member is a plurality of coil springs.

Claim 37 (Cancelled). The heat exchanger of Claim 32, wherein the biased deformable member is a bellows.

Claim 38 (Currently Amended). A heat exchanger comprising:

a. a core having a variable length and comprising a stack of plates to facilitate heat exchange; and

b. a support structure, wherein the core is received by the support structure, wherein the support structure comprises a fixed member and an attached fluid-biased bellows for accommodating variations in the length of the core while applying a biasing force to the core, wherein the fixed member comprises a first end and a second end, wherein the first end and the second end are positioned about the core, wherein the first end is in contact with the core, wherein the bellows is mounted between the core and the second end of the fixed member, so that the bellows is deformed as the length of the core varies and wherein the bellows is wider than the core.

Claim 39 (Withdrawn). The heat exchanger of Claim 32, wherein the biased deformable member is a plurality of bellows.

Claim 40 (Withdrawn). The heat exchanger of Claim 39, wherein the plurality of bellows are aligned axially.

Claim 41 (Withdrawn). The heat exchanger of Claim 39, wherein the plurality of bellows are positioned adjacent one another.

Claim 42 (Cancelled). The heat exchanger of Claim 37, wherein the bellows comprises a first plate, a second plate and an expandable side wall mounted between the first plate and the second plate.

Claim 43 (Withdrawn). The heat exchanger of Claim 32, wherein the biased deformable member is a piston assembly.

Claim 44 (Withdrawn). The heat exchanger of Claim 37, wherein the piston assembly is wider than the core.

Claim 45 (Withdrawn). The heat exchanger of Claim 32, wherein the biased deformable member is a plurality of piston assemblies.

Claim 46 (Withdrawn). The heat exchanger of Claim 45, wherein the plurality of piston assemblies are aligned axially.

Claim 47 (Withdrawn). The heat exchanger of Claim 45, wherein the plurality of piston assemblies are positioned adjacent one another.

Claim 48 (Withdrawn). The heat exchanger of Claim 43, wherein the piston assembly comprises a cylinder and a piston received by the cylinder.

Claim 49 (Cancelled). The heat exchanger of Claim 11, wherein the core comprises a first end and a second end, wherein the variable length of the core is set between the first end and the second end, wherein the fixed member comprises a first section and a second section, wherein the first section of the fixed member abuts the first end of the core, wherein the biased deformable member is mounted between the second end of the core and the second section of the fixed member, so that the biased deformable member is deformed as the length of the core varies.

Claim 50 (Withdrawn). The heat exchanger of Claim 49, wherein the biased deformable member is a compression spring.

Claim 51 (Withdrawn). The heat exchanger of Claim 49, wherein the biased deformable member is a coil spring.

Claim 52 (Cancelled). The heat exchanger of Claim 49, wherein the biased deformable member is a bellows.

Claim 53 (Cancelled). The heat exchanger of Claim 52, wherein the bellows comprises a first plate, a second plate and an expandable side wall mounted between the first plate and the second plate.

Claim 54 (Withdrawn). The heat exchanger of Claim 49, wherein the biased deformable member is a piston assembly.

Claim 55 (Withdrawn). The heat exchanger of Claim 54, wherein the piston assembly comprises a cylinder and a piston received by the cylinder.

Claim 56 (Original). The heat exchanger of Claim 38, wherein the core is pressurized with a gas and wherein the bellows is in fluid communication with the core, so that the bellows has substantially the same gas pressure as the core.

Claim 57 (Previously Presented). A heat exchanger comprising:

a. a core having a variable length; and

b. a support structure, wherein the core is received by the support structure, wherein the support structure comprises a fixed member and an attached bellows for accommodating variations in the length of the core while applying a biasing force to the core, wherein the bellows is wider than the core, wherein the fixed member comprises a first end and a second end, wherein the first end and the second end are positioned about the core, wherein the first end is in contact with the core, wherein the bellows is mounted between

the core and the second end of the fixed member, so that the bellows is deformed as the length of the core varies and wherein the core is pressurized with a gas and wherein the bellows is in fluid communication with the core, so that the bellows has substantially the same gas pressure as the core.

Claim 58 (Canceled).

Claim 59 (Cancelled). A heat exchanger comprising:

a. a core having a variable length and comprising a stack of plates to facilitate heat exchange; and

b. a support structure, wherein the core is received by the support structure, wherein the support structure comprises a fixed member and an attached bellows for accommodating variations in the length of the core while applying a biasing force to the core wherein the bellows comprises two plates with an expandable wall mounted between the plates and wherein the bellows is wider than the core.